

Claims

1. A method for manufacturing a golf ball, comprising:
 - obtaining a solid core having a compression of about 75 or less;
 - cooling said core, wherein said core has a first effective modulus at room temperature, and wherein said cooling step causes the core effective modulus to increase by about 5 to about 40 percent; and
 - forming a thin layer of material around the core.
- 10 2. The method of claim 1, wherein said core has an outer diameter of about 1.55 inches or greater.
- 15 3. The method of claim 2, wherein the step of forming a thin layer or material around the core comprises placing the core in a mold and injection molding layer material around the core.
4. The method of claim 3, wherein the injection molded layer material contacts the cooled core from about 10 to about 50 seconds after said cooled core is placed in said mold.
- 20 5. The method of claim 2, wherein said core has an outer diameter of about 1.58 to about 1.64 inches.
6. The method of claim 2, wherein the thin layer of material molded around the core has a thickness of about 0.05 inch or less.
- 25 7. The method of method of claim 6, wherein the thin layer of material molded around the core has a thickness of about 0.04 inch or less.
8. The method of claim 1, wherein said core has a first diameter at room temperature, and wherein said cooling step causes the core diameter to be reduced from about 0.3 to about 5 percent prior to forming said thin layer of material around the core.

9. The method of claim 1, wherein said core has a first effective modulus at room temperature, and wherein said cooling step causes the core effective modulus to increase above about 3,000 psi.
- 5 10. The method of claim 1, further comprising the step of using a dehumidification device to reduce the accumulation of moisture on the cooled core.
11. The method of claim 1, further comprising the step of substantially removing moisture from the surface of the cooled core prior to forming the thin layer.
- 10 12. The method of claim 2, wherein said core has a COR of about 0.790 or greater at an inbound velocity of 125ft/sec prior to cooling.
13. A method for manufacturing a golf ball, comprising:
15 obtaining a solid golf ball component;
cooling said golf ball component, wherein said golf ball component has a first effective modulus at room temperature, and wherein said cooling step causes the component effective modulus to increase by about 5 to about 40 percent; and
forming a thin layer of material around the component.
- 20 14. The method of claim 13, wherein said golf ball component comprises a core having an outer diameter of about 1.55 inches or greater.
15. The method of claim 14, wherein said golf ball component further comprises an inner cover layer.
- 25 16. The method of claim 14, wherein said thin layer of material comprises a cover.
17. The method of claim 13, wherein the step of forming a thin layer or material around
30 the core comprises placing the cooled component in a mold and injection molding layer material around the component.
18. The method of claim 14, wherein said core has an outer diameter of about 1.58 to about 1.64 inches.

19. The method of claim 13, wherein the thin layer of material molded around the component has a thickness of about 0.05 inch or less.
- 5 20. The method of claim 19, wherein the thin layer of material molded around the component has a thickness of about 0.04 inch or less.
- 10 21. The method of claim 13, wherein said component has a first effective modulus at room temperature, and wherein said cooling step causes the component effective modulus to increase by about 5 to about 40 percent.
22. The method of claim 21, further comprising the step of using a dehumidification device to reduce the accumulation of moisture on the cooled component.

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